

ENVIRONMENTAL ASSESSMENT AND INNOVATION DIVISION (EAID)

Joint Evaluation and Semiannual Status Report

Grant Title: Pennsylvania Comprehensive Aquatic Resource Protection and Management Program Development Plan

EPA Assistance # CD-96317201

Report #: 8th Semiannual Status Report

Report Date: August 1, 2017

Reporting Period Dates: January 1, 2017- July 31, 2017

Budget/Project Period Dates: 10/01/2012-06/30/2017 (amended)

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CD-963172-01-0 Status Overall Funding

Federal Funding:	\$ 900,000
Federal Funds Expended	\$ 811,243
Federal Funding Commitments	\$ 86,000
Federal Funds Remaining	\$ 2,757
State Funding:	\$ 350,000*
State Funding Expended	\$ 341,400
State Funding Remaining	\$ 8,600

*An additional \$50,000 in state Clean Water Funds were made available for use as state matching funds towards the objectives of this grant.

GOALS/OBJECTIVES:

To address three critical areas of program development or program focus areas (PFA):
PFA 1) Revision of outdated regulations to address program deficiencies; advances in scientific understanding, and changes in the threats to aquatic resources; PFA 2) address deficiencies in compensatory mitigation guidelines; performance standards, and success measures; and PFA 3) to advance the understanding of stream-floodplain-wetland restoration approaches to improve compensatory mitigation science.

PLANNED VS ACTUAL ACCOMPLISHMENTS AND ACHIEVED ENVIRONMENTAL RESULTS:

The planned and actual accomplishment discussions and achieved environmental results are discussed for each PFA separately, below. As indicated on page 1 of this report, an additional \$50,000 in state Clean Water Funds were made available for use as state matching funds towards objectives of this grant. These monies were included to reconcile yearly fiscal item increases in budgeted amounts that were inadvertently unaccounted for in the original grant budget outline.

Program Focus Area 1: Regulatory Revisions

1	Revised wetland regulations.
2	Specific wetland antidegradation language.
3	Wetland antidegradation technical guidance.
4	New permitting structures.
5	Function based impact and compensation permit tracking.

1. DEP is not able to pursue comprehensive regulatory revisions at this time. Identification and evaluation of specific section revisions to provide clarity to the regulations is on-going. A significant effort was made to make revisions to the Environmental Assessment (EA) discussed in 4 below to incorporate identified revisions and program development efforts.
2. The Aquatic Resource Condition Level 2 Rapid Assessment Protocols (L2RAP) technical guidance were published as final in the Pennsylvania Bulletin on February 4, 2017. Training on the implementation of the L2RAP, for resource agency staff and the regulated community, was completed in June 2017 as planned. A total of six training workshops were conducted across PA, three for agency related staff and three for practitioners that will utilize the technical guidance. Approximately 300 people attended the workshops, including 100 agency personnel and 200 practitioners.
3. The form utilized to meet the EA requirements found in state regulations was significantly revised for the first time since 1996 as a result of finalizing the above mentioned technical guidance an additional set of revisions are scheduled in 2018 to address finalization of the compensatory program policy changes and to lay the framework for incorporation of the planned antidegradation guidance development which will be a future outcome of the grant work.
4. Work was performed on establishing a 3-tier approach to general permits and making recommendations for program revisions are progressing towards completion.
5. The Department continued to participate in meetings for planning a Pennsylvania Watershed Resources Registry (WRR). Upon completion and implementation, the WRR will be a comprehensive GIS based targeting tool, which will provide a basis for setting compensation priorities. Work was resumed on the function based impact and compensation program enhancements including permit tracking efforts were incorporated into the EA revisions discussed above to facilitate finalization of these program enhancements in the near future.

Program Focus Area 2: Headwater Aquatic Resources Profiles

1	Establish 3-5 reference standard 12 digit HUC watersheds in different physiographic provinces.
2	Ecological profiles of the established 12 digit HUC watersheds in different physiographic provinces.
3	Headwater Aquatic Resource Community FQI ranges

Through this project, the Pennsylvania Natural Heritage Program (PNHP) will develop ecological profiles for headwater aquatic resources in six selected watersheds in different physiographic provinces in Pennsylvania along with general conceptual models for these resources. This information will be used by the Pennsylvania Department of Environmental Protection (PA DEP) to help establish reference standards which will help inform aquatic resource management planning and mitigation work in Pennsylvania.

1. Compile data collected from sites, calculate indices, and conduct analyses.

Additional metrics were calculated such as geology, stream gradient, watershed size, slope, and sinuosity in order to assign the streams sampled to both a Rosgen stream classification and the PA Aquatic Community Classification. This information will be used in the final report to describe the types of streams sampled in and across watersheds.

PCORD analyses were done to examine the differences between upland vegetation plots and riparian plots. This information will be incorporated into the discussion section of the final report.

Summary statistics were calculated for riparian vegetation found along each stream sampled. These data will be incorporated into the stream and watershed sections of the report.

2. Organize data and outline final report.

Work was done on the body of the draft final report including additions to the introduction, methods section, and general comparison of sites.

3. Finalize watershed condition reports, recommendations, and other items related to the focal watersheds.

Additional information was added to the watershed and site descriptions including summary vegetation tables for each stream sampled. Maps of these areas were created for inclusion in the final report. Site photos were selected for inclusion in the final report.

Program Focus Area 3: Headwater Aquatic Resource Restoration

1	Pre-Post Water Quality Comparison
2	Pre-Post Biological Changes (various assemblages)
3	Pre-Post Physical Changes - Success/failure of physical alterations.
4	Comparison of plant community establishment to reference standards.

1. **2017 Activities:** The Scientific Investigation Report was drafted and routed to DEP staff for comment as well as other contributors. The comments were incorporated and the report finalized.
2. **2017 Activities:** Another year of post-restoration sampling and data analysis completed. The draft report (contract deliverable) comparing pre-restoration baseline conditions with post-restoration characteristics for plant, herptile and diatom communities was submitted to DEP for review and is currently under review.
3. **2017 Activities:** Additional interpretation of the valley geomorphological response to restoration was completed using new surface changes and is part of the final draft report submitted to DEP for review.
4. **2017 Activities:** A comparison with reference conditions Trends over time for restored plant communities was provided in the final draft report under review.

QUALITY ASSURANCE PROJECT PLAN UPDATE:

No revisions or updates at this time.

HIGHLIGHTS:

None at this time.

POLLUTION PREVENTION ACCOMPLISHMENTS:

N/A.

EQUIPMENT:

N/A.

AREAS OF CONCERN - DEFICIENCIES/CORRECTIVE ACTION:

N/A

RENEGOTIATED COMMITMENTS:

N/A

SUGGESTIONS FOR EPA SUPPORT:

None at this time.

RESOLUTION PLAN AND TIMING ACTION ITEMS:

N/A. No deficiencies to resolve.

TARGET COMPLETION DATE:

N/A. No deficiencies to resolve.